

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



# U.S. DEPARTMENT OF AGRICULTURE

## Office of Information



Picture Story No. 71

December 15, 1949

### CHESTNUT RETURNS TO AMERICAN SCENE IN BLIGHT RESISTANT VARIETIES

Plant scientists of the U. S. Department of Agriculture have recently released three new varieties of blight resistant chestnuts for orchard production in this country. These are Nanking, Meiling, and Kuling, the first of several promising selections to be developed from chestnut breeding material collected by USDA explorers in China.

The new Chinese varieties are orchard rather than forest trees. At maturity they reach the size of a large apple tree and are symmetrical in shape with spreading branches and thick foliage. The nuts, burs, and leaves look much like those of the once popular American chestnut. The nuts are usually larger with a flavor considered by most persons to be just as sweet. Yields are good--up to 100 pounds of nuts from a 10-year-old tree.

Like other orchard crops, Chinese chestnuts are propagated by grafting the scions from the selected variety on to rooted stocks in the nursery. The young grafted trees are then grown for a year in the commercial nursery before they are offered for sale to orchardists. They often come into bearing the second year in the orchard. The three new varieties recently released to commercial nurserymen have been tested only in the Southeast. Further studies will show whether they are equally well suited further north. At the same time the plant scientists are developing horticultural types for the central and northern parts of the country.

Chestnuts of the new varieties keep well when properly stored. Because they are very high in starch and very low in oil, they must be protected from drying and also from molds. The nuts should be harvested every day or every other day during season and placed in cold storage. Tests show, however, that keeping quality under proper storage varies in nuts from different seedlings. In other words, it is an inherited characteristic, good in some seedlings, poor in others. This makes it possible for the plant breeders to incorporate good keeping quality in the new varieties.

8x10 glossy photographs of this series are free to writers and editors on request to the Press Service, Office of Information, USDA, Washington 25, D.C.



1. Miss Janice McKay, Beltsville, Md., holds a basket of the new chestnuts, developed from blight resistant varieties of Chinese chestnuts developed by plant scientists of the U. S. Department of Agriculture for this country.

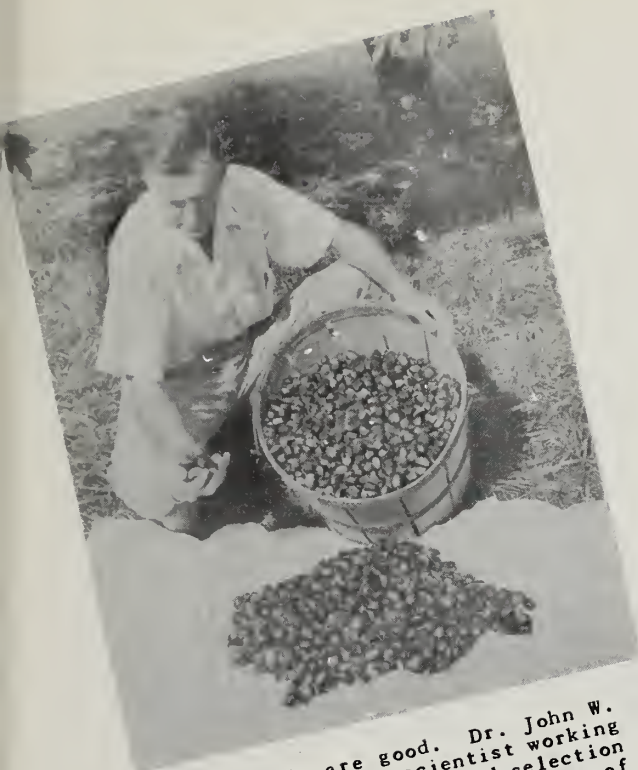


2. The new Chinese varieties are orchard rather than forest trees. This 12-year-old tree growing at Beltsville, Md., shows the characteristic appearance with spreading branches and thick foliage. It is about the size of a large apple tree.

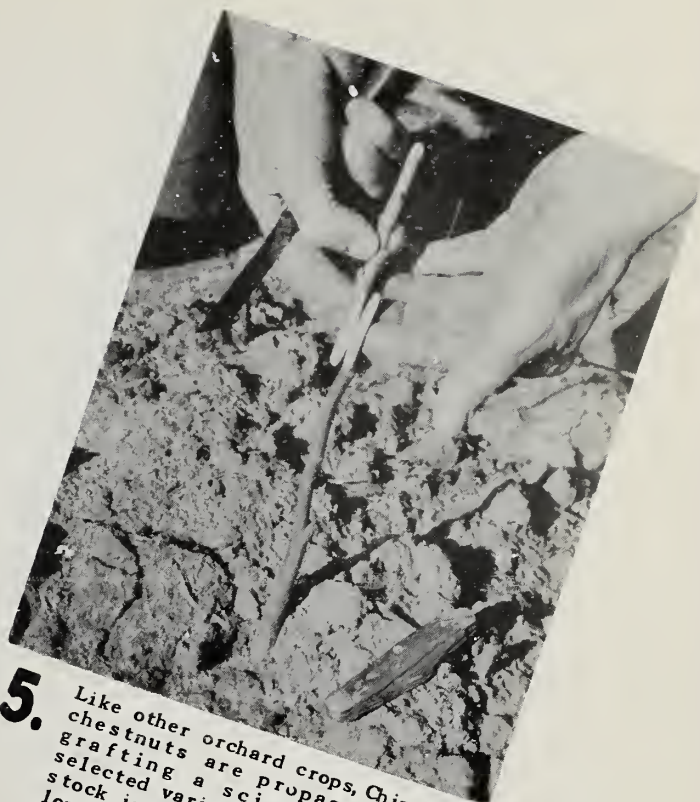


3. Nuts, burs, and leaves of the new Chinese varieties are much like the once popular American Chestnut except the nuts are larger.





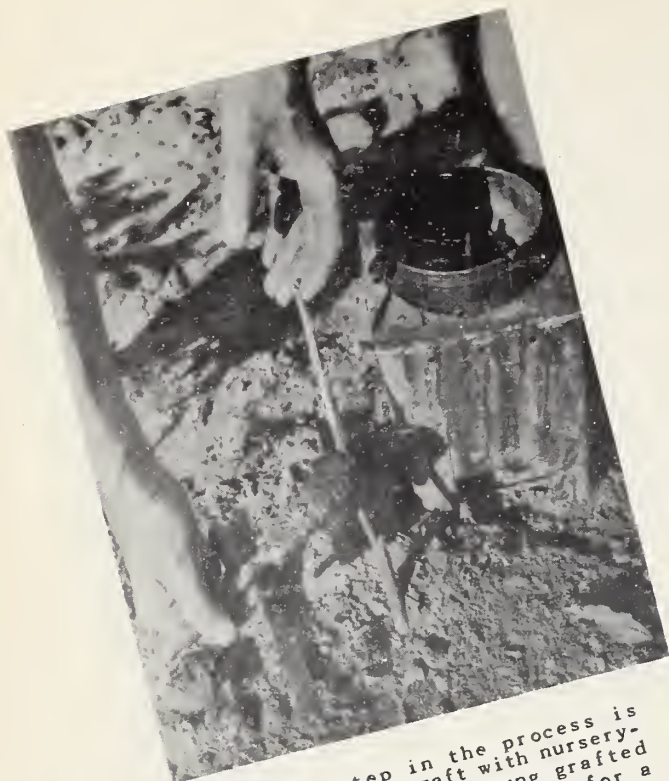
**4.** Yields are good. Dr. John W. McKay, plant scientist working with the breeding and selection of horticultural varieties of chestnuts at Beltsville, measures a bushel of nuts harvested from a 12-year-old tree.



**5.** Like other orchard crops, Chinese chestnuts are propagated by grafting a scion from the selected variety on to a rooted stock in the nursery. Similar long slanting cuts are made on the scion and on the rooted stock.



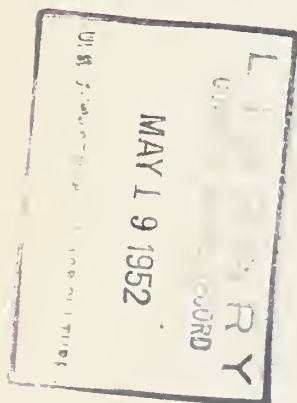
**6.** Placed together so the cut surfaces meet, the graft is then wrapped with masking tape.



**7.** Final step in the process is coating the graft with nurseryman's wax. The young grafted chestnut is then grown for a year in the commercial nursery.



**8.** The new Chinese chestnut varieties often come into bearing the second year in the orchard. The 32 burs on this 4-year-old tree yielded a pound of nuts.



**9.** The new varieties keep well when properly stored. Because they are very high in starch and very low in oil, they must be protected from drying and also from molds.

RESERVE  
1.914  
P3P58

Missing: No. 72

4

~~RESERVE~~  
~~T~~